

REMARKS

Claims 1-19 and 21-22 are pending in the application.

Claims 1-19 and 21-22 are rejected.

Claims 1-7 and 21-22 are rejected under 35 U.S.C. 103(a).

Claims 8-9 are rejected under 35 U.S.C. 103(a).

Claims 10-13 are rejected under 35 U.S.C. 103(a).

Claims 14-16 are rejected under 35 U.S.C. 103(a).

Claims 17-19 are rejected under 35 U.S.C. 103(a).

Claims 1 and 10 are amended.

New claim 23 is added. Support for the limitation can be found in FIG. 4B and the accompanying text, for example.

No new matter is added.

Claim 22 is cancelled in favor of amended claim 1.

Claims 1-19, 21 and 23 remain in the case for consideration.

Applicant requests reconsideration and allowance of the claims in light of the above amendments and following remarks.

Claim Rejections – 35 U.S.C. § 103

Claims 1-7 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikata, et al. (U.S. 6,133,637) in view of Kondo, et al. (JP 63-240053 A).

Applicant respectfully traverses the rejections.

The Examiner insists that Hikata and Kondo properly combine to render claims 1-7 and 21-22 obvious. The Examiner advances no new basis for the rejection, and fails to respond meaningfully to Applicants' arguments of record. For example, the Examiner states at page 8 that “[a]lthough Hikata expressly teaches at columns 5 and 6 that the inner package (26) is cured and set, *this does not explicitly mean that the resin is not softer than the outer package.*” (Emphasis added.) In effect, the Examiner's position is that if Hikata does not teach that his cured and set resin is equal to or harder than the outer package, then Hikata effectively teaches that his cured and set resin is softer than the outer package.

Such a strained approach to analyzing the relevance of a prior art reference would indeed lead to improper non-patentability conclusions in nearly every case and is contrary to established case law. The case law requires that a prior art reference be read in its entirety by a hypothetically ordinarily skilled reader at the time of the filing of the patent application

under consideration but without benefit of the patent application's teachings. Where a reference is silent, it cannot be fairly interpreted as teaching anything at all. Otherwise, an Examiner would be unrestrained and free to *read into* the prior art any claimed element not expressly taught. Nothing would pass the *Graham-Deere* non-obviousness test if Examiner's were free to read whatever they could not find expressly taught anywhere into a cited prior art reference where the reference is silent on the omitted element. Thus no invention could ever meet the statutory test for patentability and no new patent would ever be granted under Congress's 35 USC 101 and 102 mandate.

The Examiner's resort on the same page of the Office action to what is well known—that "epoxy resins can have various properties depending on the composition of the resin and the addition of fillers"—is of no help. This is because it omits a critical teaching of the use of soft elements to relieve stress between semiconductor chip and a mold resin encapsulant. Applicants claim the use of a soft element between at least one of a stacked two or more semiconductor chips and an outer mold resin encapsulation material to relieve stress on the fragile semiconductor chip. Clearly, a hard element will not do to relieve stress if the hard element is harder than the mold resin used in prior art packaging. So, degree is important, which is why applicants' claims recite that the soft element is more flexible than the mold resin (independent claim 1) or encapsulant (independent claim 10) or includes an elastomer or an epoxy resin without filler (independent claim 14).

The Examiner insists on relying on Kondo's cryptic and inconsistent teachings (cryptic because the only the English-language Abstract and drawings are relied on; inconsistent because Fig. 3 uses an apparently incorrect reference designator 6 to refer to its "flexible materials" 9 selectively covering only the upper surface of semiconductor element 1). Applicants preserve their record objection to the Examiner's reliance on selected translated portions of a complete Japanese patent publication for which the Examiner refuses to provide a certified translation. The Examiner at any phase of examination under MPEP 901.05(d) can request translation of any portion or the entirety of a foreign patent publication.

Applicants submit that in the present case translation of Kondo in its entirety is especially needed and incumbent upon the Examiner, since the abstract is cryptic, inconsistent in at least one particular with the drawings (reference designator 6 shown in Fig. 3 is nowhere mentioned in the accompanying English language text) and incomplete in describing the various selective uses of a flexible material around the semiconductor element 1 (Fig. 3?), around the peripheral sections of wirings 5 (Fig. 1) and/or around both (Fig. 2).

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikata, et al. (U.S. 6,133,637) in view of Kondo, et al. (JP 63-240053 A) as applied to claim 1 above, and further in view of Derderian (U.S. 6,569,709 B2). Applicant respectfully traverses the rejections.

Applicants rely on their arguments of record and those laid out above for the patentability of these claims that depend from allowable base claims.

Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa, et al. (U.S. 6,215,182 B1) in view of Kondo, et al. (JP 63-240053 A). Applicant respectfully traverses the rejections.

First, applicants hereby voluntarily amend claim 10 to make it more definite. Specifically, applicants render the elements of the claim in order such that the first reference to "encapsulant" has a proper antecedent basis.

Second, applicants rely on their arguments of record and those laid out above for the patentability of claim 1. As stated before, Ozawa teaches nothing about soft elements provided on a surface of at least one of two stacked semiconductor chips but not on surfaces therebetween, wherein the soft element is more flexible than an encapsulant that covers the two chips and the soft element.

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikata, et al. (U.S. 6,133,637) in view of Scranton, et al. (U.S. 6,099,783). Applicant respectfully traverses the rejections.

Applicants rely in part on their arguments of record and those laid out above for the patentability of claim 1. Furthermore, Scranton (or, at least Scranton's Abstract) makes no mention of a soft element or stress relief. Even a fair and complete reading of Scranton leads one of ordinary skill in the art to the conclusion that Scranton's fillers are putty-like from a partial cure *only in an intermediate phase of their use* for convenient storage, pouring and molding around the interior of semiconductor packages *until such time as they are finally cured and hardened consistent with conventional device encapsulation materials and techniques*. (See the entire Scranton specification, as opposed to a selective reading of a single sentence at col. 17, lines 56-61. See, for example, col. 17, lines 5-16; lines 28-39. In this respect, amended claims 1 and 10, which now respectively recite, "the soft element including an elastomer or an epoxy resin without a filler," are allowable for this reason alone.

Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikata, et al. (U.S. 6,133,637) as applied to claim 14 above, and further in view of Kondo, et al. (JP 63-240053 A). Applicant respectfully traverses the rejections.

Applicants rely on their arguments of record and those laid out above for the patentability of these claims that depend from allowable base claims.

In conclusion, applicants submit that the Examiner continues to fail to make even a *prima facie* case for the obviousness and rejection of applicants claims. Accordingly, applicants request reconsideration and allowance of all pending claims.

For the foregoing reasons, reconsideration and allowance of claims 1-19, 21 and 23 of the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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